(19) World Intellectual Property Organization International Bureau

rganization national Bureau



(43) International Publication Date 23 December 2004 (23.12.2004)

PCT

(10) International Publication Number WO 2004/110442 A1

- (51) International Patent Classification⁷: A61K 31/4412, 31/4418, C07D 213/89, 409/12, A61P 31/12
- (21) International Application Number:

PCT/EP2004/005971

(22) International Filing Date:

1 June 2004 (01.06.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 0313250.3

9 June 2003 (09.06.2003) GB

(71) Applicant (for all designated States except US): ISTI-TUTO DI RICERCHE DI BIOLOGIA MOLECO-LARE P ANGELETTI SPA [IT/IT]; Via Pontina KM

30.600, I-00040 Pomezia (Rome) (IT).

- (72) Inventors; and
- (75) Inventors/Applicants (for US only): COLARUSSO, Stefania [IT/IT]; IRBM, Via Pontina KM 30.600, I-00040 Pomezia (Rome) (IT). NARJES, Frank [DE/IT]; IRBM, Via Pontina KM 30.600, I-00040 Pomezia (Rome) (IT).
- (74) Agent: MAN, Jocelyn; Merck & Co., Inc., European Patent Department, Terlings Park, Eastwick Road, Harlow Essex CM20 2QR (GB).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PYRIDINE N-OXIDES AS ANTIVIRAL AGENTS

(57) Abstract: The present invention relates to pyridinone derivatives of formula (I) wherein Z represents $C_{2.6}$ alkynyl, aryl or heteroaryl, any of which groups may be optionally substituted, and R^1 represents hydrogen, $C_{1.6}$ alkyl, $C_{3.7}$ heterocycloalkyl($C_{1.6}$)alkyl, $C_{1.6}$ alkyl, $C_{2.6}$ alkylcarbonyloxy($C_{1.6}$)alkyl or $C_{3.7}$ cycloalkoxycarbonyloxy($C_{1.6}$)alkyl, and pharmaceutically acceptable salts thereof, useful in the prevention and treatment of hepatitis C virus infections.